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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,585	01/18/2002	Takahiro Sato	YAMAP0797US	1116

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EXAMINER

WILLIAMS, JEFFERY L

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,585

Applicant(s)

SATO ET AL.

Examiner

Jeffery Williams

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/12/04 10/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 5 and 6 rejected under 35 U.S.C. 102(e) as being anticipated by Stokes, "Magnetic Optical Encryption/Decryption Disk Drive Arrangement", U.S. Patent 6,473,861 B1.

Regarding claim 5, Stokes discloses:

an execution section for executing an interpreter execution program that is capable of interpreting an intermediate code, so as to generate a control command string (Stokes, fig. 1, elem. 11; fig. 3; col. 6, lines 14-17, 49-55, 56, 57; col. 3, lines 6-10). As disclosed by Stokes, the RAM contains encrypted data, comprising a user

1 chosen program to govern the disk drive operation, which is interpreted by the
2 encryption/decryption ROM program.

3 *and a control section for controlling recording/reproduction or information on an*
4 *optical disc according to the control command string* (Stokes, fig. 1, elem. 11, fig. 3; col.
5 6, lines 49-55). Stokes further discloses a control section for controlling the
6 recording/reproduction of information on an optical disc. It is inherent that the execution
7 section generates a command string so as to control the control section.

8
9 Regarding claim 6, Stokes discloses:
10 a RAM for storing an intermediate code; a ROM for storing the interpreter
11 execution program; and a CPU for controlling execution of the interpreter
12 execution program (Stokes, fig. 1, elem. 11, fig. 3).

13
14 ***Claim Rejections - 35 USC § 103***

15 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
16 obviousness rejections set forth in this Office action:

17 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
18 forth in section 102 of this title, if the differences between the subject matter sought to be patented and
19 the prior art are such that the subject matter as a whole would have been obvious at the time the
20 invention was made to a person having ordinary skill in the art to which said subject matter pertains.
21 Patentability shall not be negated by the manner in which the invention was made.
22
23

24 **Claims 1 – 4 and 7 – 11 are rejected under 35 U.S.C. 103(a) as being**
25 **obvious over Stokes, “Magnetic Optical Encryption/Decryption Disk Drive**
26 **Arrangement”, U.S. Patent 6,473,861 B1.**

1

2 Regarding claim 7, Stokes does not specifically disclose that the RAM the ROM,
3 and the CPU are formed on one chip. Stokes does disclose, however, that all the
4 described components are modules of a circuit (Stokes, col. 2, lines 16-19). Stokes
5 also discloses that prior art teaches to place the RAM, ROM, and CPU on a single
6 integrated circuit chip (Stokes, col. 1, lines 47-50). It is further disclosed that the
7 improvement upon prior art is locating this circuit within a sealed tamper resistant
8 enclosure (Stokes, col. 1, lines 62-66). This teaching is suggested by the drawings
9 (Stokes, fig. 1, fig. 3).

10 It would have been obvious to one of ordinary skill in the art to employ the
11 method of placing the RAM, ROM, and CPU on one chip. This would have been
12 obvious because one of ordinary skill in the art would have been motivated to employ
13 the teachings of prior art as well as the methods of Stokes for improving upon prior art.

14

15 Regarding claim 8, the modification of Stokes discloses:

16 a recording/reproduction head for recording/reproducing information on the
17 optical disc; a motor for driving the optical disc; and an optical disc control section for
18 controlling the recording/reproduction head and the motor (Stokes, figs. 1, 3).

19

20 Regarding claim 9, the modification of Stokes discloses:

21 wherein the optical disc control section is formed on the one chip (Stokes, figs. 1,
22 3; see explanation for claim 7).

1

2 Regarding claim 10 the modification of Stokes does not disclose that the
3 intermediate code is encrypted. However, Stokes does disclose that the addresses
4 used to direct the control section where to place data on a single disk are encrypted.
5 Stokes further discloses that, along with the encrypted addresses, the RAM also
6 contains code to direct the control section where to place data on multiple disks.
7 (Stokes, col. 6, lines 40-55).

8 It would have been obvious to one of ordinary skill to encrypt this code as well.
9 This would have been obvious because one of ordinary skill in the art would be
10 motivated by the same reason to encrypt addresses for data placement on a single disk,
11 to also encrypt the code that addresses data to multiple disks, as this would provide
12 security by hiding the addresses of the data.

13

14 Regarding claim 11, the modification of Stokes does not specifically disclose that
15 the RAM is able to store encrypted code and unencrypted code. However, it would
16 have been obvious, based upon logical reasoning, to one of ordinary skill in the art to
17 recognize that RAM is capable of storing encrypted information and unencrypted
18 information. This would have been obvious because one of ordinary skill in the art
19 would have clearly recognized that RAM is usable for storing digital information, and
20 digital information, whether encrypted or not, is capable of being stored in RAM.

21 The modification of Stokes does not specifically disclose that an interpreter
22 program is able to interpret both encrypted code and unencrypted code. However, it

1 would have been obvious to one of ordinary skill in the art, based upon logical
2 reasoning, to recognize that a program can be used by a processor to process both
3 encrypted code and unencrypted code. This would have been obvious, because one of
4 ordinary skill in the art would have logically recognized that an program could easily
5 interpret encrypted code by XORing with a certain decryption key comprised of binary
6 1's and 0's, and could just as easily interpret unencrypted code by XORing with a key
7 consisting of binary 0's, thus revealing the same unencrypted code.

8
9 Regarding claim 1, it contains essentially the same limitations as claims 6 and 7,
10 and is rejected for the same reasons.

11
12 Regarding claim 2, it contains essentially the same limitations as claim 10, and is
13 rejected for the same reasons.

14
15 Regarding claim 3, it contains essentially the same limitations as claim 11, and is
16 rejected for the same reasons.

17
18 Regarding claim 4, it contains essentially the same limitations as claims 7 and 8,
19 and is rejected for the same reasons.

20

21

22

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Arnold et al., U.S. Patent 4,558,176.

Glover, U.S. Patent 6,052,780.

Bush, U.S. Patent 5,150,465.

Sprague et al., U.S. Patent 6,449,720.

Hampson, U.S. Patent 4,847,902.

Westheimer et al., U.S. Patent 4,573,119.

A shortened statutory period for reply is set to expire **3** months (not less than 90 days) from the mailing date of this communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery Williams whose telephone number is (571) 272-7965. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2137

1 Information regarding the status of an application may be obtained from the
2 Patent Application Information Retrieval (PAIR) system. Status information for
3 published applications may be obtained from either Private PAIR or Public PAIR.
4 Status information for unpublished applications is available through Private PAIR only.
5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should
6 you have questions on access to the Private PAIR system, contact the Electronic
7 Business Center (EBC) at 866-217-9197 (toll-free).

8
9
10 Jeffery Williams
11 Assistant Examiner
12 Art Unit 2137
13 06.27.2005

Matthew D. Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137